VERSION SHOWING AMENDMENTS TO THE CLAIMS

(AS PER AMENDED SHEET)

This listing replaces all prior listings of the claims.

IN THE CLAIMS

Amend the claims as follows:

1 (Currently amended). A memory unit having a storage function composed substantially of organic material, comprising:

an electrolyte; and

an organo-resistive material embedded in the electrolyte wherein the storage function of the unit results from the ~~component is achieved due to an~~ organo-resistive material being embedded in the ~~an~~ electrolyte.

2 (Currently amended). The ~~A~~ memory unit as defined in claim 1, further including a conductive material wherein said organo-resistive material is separated from the ~~a~~ conductive material by the ~~an~~ electrolyte so that the flow of ionic current through the electrolyte due to application of a voltage to the conductive material causes a readable change in the conductance and/or color of the organo-resistive material.

3 (Currently amended) . ~~A~~ The memory unit as defined in claim 1 or claim 2~~,~~ wherein the organo-resistive material is disposed in structured form on a substrate.

4 (Currently amended). The ~~A~~ memory unit as defined in claim 1 or 2 ~~any one of the previous claims~~, wherein said organo-resistive materials ~~are~~ is based on conjugated chains.

5 (Currently amended). A memory unit as defined in claim 1 or 2 ~~any one of the previous claims,~~ wherein the electrolyte is water-based and/or solid.

6 (Currently amended). A memory unit as defined in claim 1 or 2 ~~any one of the previous claims,~~ wherein the organo-resistive material and/or a mixture of said organo and electrolyte materials is/are soluble and can be processed in solution.

7 (Currently amended). A method of using a memory unit as defined in claim 1 or 2 ~~any one of claims 1 to 6,~~ wherein a ~~the~~ circuit arrangement is provided between a ground potential and a supply voltage and comprises at least one resistor, an organo-resistive conductive element, embedded in an electrolyte, and a control electrode.

8 (Original) . A method as defined in claim 7, wherein the circuit arrangement includes the memory unit in a matrix arrangement for achieving a higher storage density.

Add the following claims:

9 (New). The memory unit as defined in claim 3 wherein said organo-resistive material is based on conjugated chains.

10 (New). A memory unit as defined in claim 3 wherein the electrolyte is water-based and/or solid.

11 (New). A memory unit as defined in claim 4 wherein the electrolyte is water-based and/or solid.

12 (New). A memory unit as defined in claim 3 wherein the organo-resistive material and/or a mixture of said organo and electrolyte materials is/are soluble and can be processed in solution.

13 (New). A memory unit as defined in claim 4 wherein the organo-resistive material and/or a mixture of said organo and electrolyte materials is/are soluble and can be processed in solution.

14 (New). A memory unit as defined in claim 5 wherein the organo-resistive material and/or a mixture of said organo and electrolyte materials is/are soluble and can be processed in solution.

15 (New). A method of using a memory unit as defined in claim 3 wherein a circuit arrangement is provided between a ground potential and a supply voltage and comprises at least one resistor, an organo-resistive conductive element, embedded in an electrolyte, and a control electrode.

16 (New). A method of using a memory unit as defined in claim 4 wherein a circuit arrangement is provided between a ground potential and a supply voltage and comprises at least one resistor, an organo-resistive conductive element, embedded in an electrolyte, and a control electrode.

17 (New). A method of using a memory unit as defined in claim 5 wherein a circuit arrangement is provided between a ground potential and a supply voltage and comprises at least one resistor, an organo-resistive conductive element, embedded in an electrolyte, and a control electrode.

18 (New). A method of using a memory unit as defined in claim 6 wherein a circuit arrangement is provided between a ground potential and a supply voltage and comprises at least one resistor, an organo-resistive conductive element, embedded in an electrolyte, and a control electrode.

19 (New) . A method as defined in claim 15 wherein the circuit arrangement includes

the memory unit in a matrix arrangement for achieving a higher storage density.

20 (New) . A method as defined in claim 16 wherein the circuit arrangement includes the memory unit in a matrix arrangement for achieving a higher storage density.

21 (New) . A method as defined in claim 17 wherein the circuit arrangement includes the memory unit in a matrix arrangement for achieving a higher storage density.

22 (New) . A method as defined in claim 18 wherein the circuit arrangement includes the memory unit in a matrix arrangement for achieving a higher storage density.